

SYSTEM AND METHOD FOR ELECTROSURGICAL TISSUE CANALIZATION

ABSTRACT OF THE DISCLOSURE

A method for transmyocardial revascularization of the heart of a patient includes positioning an active electrode surface in close proximity to a target site on the wall of a patient's heart, and applying high frequency voltage between the active voltage surface and a return electrode to ablate tissue at the heart wall. The high frequency voltage ablates, i.e. volumetrically removes the heart tissue, and the electrode surface is axially translated into the space vacated by the removed tissue to bore a channel through the heart tissue. The active electrode surface may be introduced into the thoracic cavity and placed adjacent the epicardium to form an inward channel toward the ventricular cavity, or it may be delivered into the ventricular cavity of the heart and positioned adjacent the endocardium to form a channel extending outward towards the epicardium. In either case, the channels formed through the myocardium promote direct communication between blood within the ventricular cavity and that of existing myocardial vasculature to increase blood flow to the heart tissue.